SOS Visual Playlist Editor (Preview Edition)

November 2015
Version 5.0

Introduction

The Visual Playlist Editor is a new interactive playlist editor that visually lays out, modifies, and previews SOS dataset content. It is being released with SOS 5.0 as a "preview edition" to provide the SOS community an early look at what is planned to be a replacement for the existing playlist editor and it represents a major advance in how SOS content and presentations will be created and augmented. We encourage you to try it out and send us your suggestions and bug reports.

In this document, we refer to the Visual Playlist Editor as **PLE** for short.

The following annotated screenshot identifies the components that make up the PLE. The rest of this document will refer to these components.
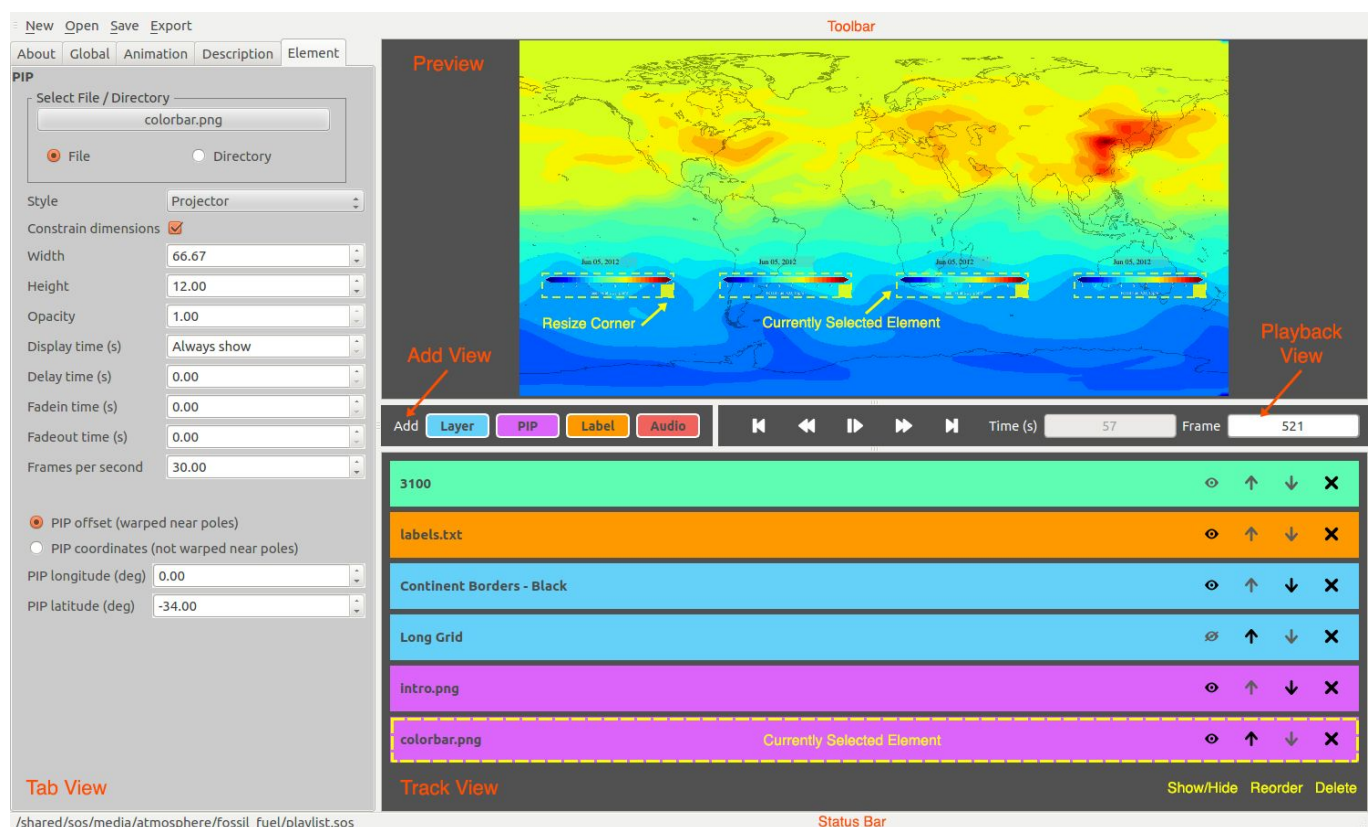
PLE Interface Definitions

Toolbar: Start new datasets, open existing datasets, and save/export datasets.

Tab View: View and modify the global attributes of a dataset (ex. Name, Sphere Tilt, FPS, etc.) and the properties of Elements such as PIPs (ex. pipwidth, pipfps, etc.).

Preview: Visually view all the Elements (ex. Layers, PIPs, Labels, etc.) that make up a dataset, and move and rescale Elements using the mouse.

Add View: Add a new Element to the dataset. (Note: Base Data cannot be added to a dataset. Use Layers instead.)

Playback View: Control playback of a dataset, and view the current playback time and frame number of the dataset. Edit the current frame number.

Track View: A list of all the Elements in the dataset shown as a set of track lanes. Clicking on an Element track lane will highlight this Element in the Preview and will show the Element's attributes in the Element Tab View. Each track lane contains 4 buttons:

> **Eye Button:** Show/Hide an Element in the Preview.
> **Up/Down Buttons:** Reorder Element.
> **X Button:** Delete Element.

Element: A component of a dataset. This includes:

> **Base Data:** The first (or only) global layer in a dataset. (Corresponds to the `data` or `datadir` keywords in SOS.) A dataset may or may not have this Element. If not, the dataset must have at least one Layer.

> **Layer Data:** A global Layer in a dataset.

> **PIP Data:** A picture-in-a-picture, or image inset, that is on top of the Base or Layer Data.

> **Label Data:** A text file that contains a list of labels that runs in sync with data that is a movie or a directory of images.

> **Audio:** An audio track.

General Use

View an existing dataset

Click the Open button in the Toolbar. Browse to a dataset of interest. Select a playlist.sos file. The path to the dataset you just opened shows up in the status bar on the bottom left corner of the interface. The dataset imagery will open in the Preview, and the Tabs and Track View will get populated with this dataset's attributes. Use the Playback View controls to animate through a dataset.

Modify a dataset

For global modifications to a dataset, such as frames per second (FPS), select the Animation Tab, modify attributes, and re-run the animation. When attributes are modified in the other global tabs (About, Global, and Description), the Preview and Track View in the PLE are not affected, even when you run the animation, as their usage in these views is not relevant. However, if saved, changes in these tabs will show up in SOS.

Click on an Element in the Preview or Track View. For Layers and PIPs, a yellow corner appears in the bottom right of the Element in the Preview to indicate that the Element can be rescaled (the current aspect ratio is maintained) using the mouse by dragging the corner. Note that Base Data and Labels cannot be resized. You can also use the mouse to move an Element around in the scene.

When you select an Element, the Element Tab is brought to the forefront and shows all the attributes that can be modified for that Element. Changing attributes such as data, size, and position will update it in the Preview. Note: For PIPs, you can uncheck the Constrain dimensions checkbox and use the Width and Height spinners to adjust the dimensions if you do not want to maintain the PIPs native aspect ratio.

Add new Elements to a dataset

In the Add View, click the desired Element to add it to your new or existing dataset.

Note: For Layers and PIPs, a dialog will ask you first if the media is a File (ex. a single image or a movie) or a Directory (a directory of image frames).

For all Elements, a File Browser will pop up where you can can select your data of interest. Once you select Open, a new Element will be added to the Track View and the Preview, and the Element Tab will open up with this Element's default attributes populated.

Note: Filters have been added to the File Browser depending on the type of data you are trying to open. So, for example, when adding Audio, you will only see audio files (.mp4, .mp3, etc.) in the browser, and for Labels, you will only see .txt files.

Save a dataset

Click the Save button in the Toolbar. If you have modified a NOAA-managed dataset (those datasets in the /shared/sos/media folder), a message prompt will pop-up explaining that this is a NOAA dataset and cannot be modified, but it can be copied to another folder. Follow the prompts to proceed.

If you click the Save button and you have modified a dataset that is not NOAA-managed, the dataset will save all your changes to your playlist.sos file that you originally opened.

If you click the Export button, select a folder in which to save your dataset. By default, the File Browser opens up into the /shared/sos/media/site-custom/ folder. Alternatively, if you want to save to a new folder, click the Create Folder button in the top-right-hand side of the File Browser that pops up, enter a folder name, press enter, and then press Open.

If you started a new dataset by clicking the New button in the Toolbar, at a minimum, in the About tab, you have to specify a Name. If you don't, when you try to Save or Export the dataset, you will get a message prompt asking you to fill in a Name.

* Before using the PLE for the first time, please read the following three sections.

Items to be aware of when using the PLE

- You cannot resize or move Base Data, so that is why no yellow corner shows up on that data in the Preview when you click on it.

- The open/load/processing time for data that contains directories of images might be long, depending on the size. This load time blocks the user interface or looks like nothing is happening. If nothing appears to be happening, please wait a few extra seconds for the load to complete.

- If you load a dataset and then press the Play button, if you notice that the Timer field is updating but the Frame number is not updating, this is likely because the Milliseconds to dwell on first frame (`firstdwell` in SOS) has been set to a non-zero value. This is the same for Milliseconds to dwell on last frame (`lastdwell` on SOS). These attributes are shown in the Animation Tab.

- If you click on an Element in the Track View, the Element gets highlighted in the Preview. If you find that no Element was highlighted in the Preview, the Show/Hide button of that Element in the Track View may be set to Hide. For PIPs, the PIP might have a Delay time or Fadein time set to values that prevent the PIP from showing up until a specified animation time. Or PIPs or Layers might have an Opacity value set to 0.0.

- One of the attributes for layers in the Element tab is a Layer is visible checkbox (corresponds to `layervisible` in SOS). If this is set to off (unchecked), the Layer will not be visible in the Preview, and the Layer in the Track View will have an Eye icon with a slash through it, indicating it is in Hide mode. The Eye icon will also be disabled. To show the Layer in the Preview, the Layer is visible checkbox must be set to on (checked) in order to enable the Eye icon.

- In the Preview, Labels have an semi-opaque background behind them. This is so that it is easier to see the Label in the Preview. This background does not show up on SOS.

Items we are not supporting in this version of the PLE

- Datasets with KML and WMS data are currently not supported.

- The Skip every Nth frame attribute (`skip` keyword in SOS) is disabled in the Animation Tab, and it is not processed by the PLE.

Known issues

- Datasets in the /shared/sos/rt/ folder (real-time datasets) are NOAA-managed datasets, and when you press the Save button, you should get a prompt telling you that you cannot save a NOAA-managed dataset and it should prevent the save. However, this prompt was not implemented in this version, so please do not save any changes for datasets in this folder.

- Sometimes, when you first load a dataset that has movie data, the movie will not show up unless you press the Play button.

- When you click on an element in the Preview Window, a yellow corner appears on the bottom right hand corner of the element. This indicates that you can drag the corner to resize the element. However, for any movie data, the corner does not appear. You can, however, still resize the element by dragging in the bottom right hand corner.

- Dataset playlist.sos files with include paths in them (for example, include = /shared/sos/media/land/mydataset/playlist.sos) are not supported and will result in unexpected behavior in the PLE.

- The position of Labels in the Preview Window are slightly offset compared to what is rendered in SOS on the sphere. For example, setting the X-Position and Y-Position in the Element tab > Label to -0.3 and -0.5 respectively might yield a horizontal position on the SOS sphere that is shifted by a few pixels.

- When a dataset with Labels is loaded for the first time, and if no `labelposition` keyword has been specified in the dataset's playlist.sos file, when you use the X-Position or the Y-Postion spin boxes in the Label Element Tab for the first time after clicking on the Label, the label position will jump a little to the left. All subsequent uses of the spin boxes are okay.

- Loading image directories with large image resolutions might cause the PLE to become unresponsive and might crash the PLE.

- If the dataset is playing and if Milliseconds to dwell on first/last frame (the SOS keywords `firstdwell` and `lastdwell`) is set in the Animation Tab, the Stop button does not work. However, once you get past the dwells, the stop button does work.

- If Milliseconds to dwell on first frame (`firstdwell` in SOS) is set in the Animation Tab, when a movie loops back to the beginning, `firstdwell` is honored, but the Preview still shows the last frame for the period of the dwell. After the `firstdwell` time expires, the movie starts from the beginning as expected.

- Sometimes, if you resize the PLE window and then load a dataset with PIPs or Labels, if you click on a PIP or Label in the Preview Window, the PIP or Label position will shift. To circumvent this, first click on a PIP or Label Element in the Track View.

- If you have a dataset with a short movie Layer, and then a second Layer with a longer movie, the default loop time is set to that of the first Layer (the shorter movie in this example). Both the short movie and the long movie will repeat from the beginning when the loop restarts. In SOS, the long movie would continue playing.